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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,018	03/27/2001	Ryuichi Ebinuma	35.G2758	7324

5514 7590 06/23/2003

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NEW YORK, NY 10112

EXAMINER

NGUYEN, HUNG

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/817,018

Applicant(s)

EBINUMA ET AL.

Examiner

Hung Henry V Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 4/24/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13, 34, 35 and 38-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 25, 26, 47, 52 and 53 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-13, 34, 35, 38-46 and 48-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 24 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 10-13, 34-35, 38-46, 48-51, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art of Fig. 11 in view of Spinali (U.S.Pat. 6,118,599).

With respect to claims 1-8, 10-13, 34-35, 38-46, 48-51, AAPA of fig.11 discloses a supporting structure for supporting an optical element comprising: an optical element (101), a first supporting member (103) for supporting the optical element; a second supporting member (105) for supporting the first supporting element and a member (108) placed between the first and second supporting members in the radial direction of the optical member (101) where an inner diameter side of the member (108) is connected to the first supporting optical member (103) and the outer diameter side of the member is connected to the second supporting member (105).

AAPA of fig.11 does not expressly disclose the member (108) placed between the first and second supporting member being made of material such as "elastic" as specifically recited in the above mentioned claimed. Spinali discloses hybrid optical barrel for supporting optical element where the optical barrel is made of material having characteristic of low coefficient of

thermal expansions such as Ultra Low Expansion TM glass, Zerodur glass, silicon carbide or alternatively, Invar (see col.4, lines 5-20). Further Spinali teaches barrel (220), and connecting barrel member (216) having a plurality of spacing members (218) for supporting lenses (208) where the spacing member is made of a material having a coefficient of thermal expansion ( $<3,0$  ppm/K), the barrel (220) is made of brass or stainless steel for the purpose of reducing the overall displacement of the lenses due to the axial displacement of the optical barrel (200) caused by the temperature change. This provides a clear suggestion that it would have obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of AAPA of Fig.11 and Spinali to obtain the invention as specified in the instant claims. It would have been obvious to a skilled artisan to employ the materials as suggested by Spinali to make the first supporting member, the second supporting member and the retaining member displaced between the first and second supporting members of the supporting structure of AAPA of fig.11. The motivation of doing so would have been to minimize the overall displacement of the optical element as suggested and thus improving the quality of the exposure device .

Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

***Allowable Subject Matter***

3. Claims 9, 25-26, 47, 52-53 are allowed with the reasons set forth in the previous office action.

***Response to Amendment***

4. Applicant's amendment filed April 24, 2003 have been entered. Claims 14-24, 27-33, 36 and 37 have been cancelled. Claims 1, 7, 9, 12, 13, 25, 26, 34, 42, 46, 47, 50, 51 have been amended. New claims 52-53 have been added. With respect to the prior art rejection, applicant's arguments have been carefully reviewed but they are not found to be persuasive. Applicant is reminded that the rejection here is made under 35 U.S.C. 103(a). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that Fig.11 and Spinali lacks to show "an elastic member" as claimed; the Examiner respectfully disagrees with the applicant. AAPA of fig.11 and Spinali meet the limitation as claimed since fig.11 discloses a support structure for supporting a lens where a member (108) is placed between the first and second supporting members in the radial direction of the optical member (101) where an inner diameter side of the member (108) is connected to the first supporting optical member (103) and the outer diameter side of the member is connected to the second supporting member (105). Spinali teaches an optical barrel where a spacing member is placed between connecting barrel members and being made of a material having a coefficient of thermal expansion ( $<3,0$  ppm/K), ....for the purpose of reducing the overall displacement of the lenses due to the axial displacement of the optical barrel (200) caused by the temperature change. In view of such teachings, it would have been obvious to a skilled artisan to placed "an member" between two supporting members for supporting an optical

element as taught by Fig. 11 and the member can be made of an elastic material/or a material having a low coefficients of thermal expansion as suggested by Spinali in order to reduce displacement of the optical element due to the temperature change in the optical apparatus and finally, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

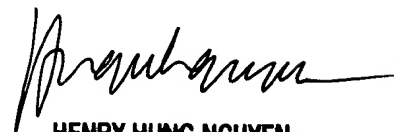
Art Unit: 2851

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

hvn  
June 16, 2003

  
**HENRY HUNG NGUYEN**  
**PRIMARY EXAMINER**